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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,908	12/22/2000	Marc Steven Price	1330.1095	6595

21171 7590 10/08/2004

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EXAMINER	
WOO, RICHARD SUKYOON	
ART UNIT	**PAPER NUMBER**
3629	

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/741,908	PRICE ET AL.	
	Examiner	Art Unit	
	Richard Woo	3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-18 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 08-05-02.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1) 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2) Claims 1-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural

phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson,* 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

> The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.,* the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma.* However, State Street never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

In the present application, there is no significant recitation of any technological device (e.g., data processing system, database, or processor) in the claim body for performing data processing operations, in which there is a significant change in the data, or for performing calculation operations.

Claim Rejections - 35 USC § 102

3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4) Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Boardman et al. (US 6,456,986).

As for Claim 1, Boardman et al. discloses a method, comprising:

receiving an electronic entity event (see Figs. 1-8; col. 1, lines 38-63; col. 2, line 42 – col. 3, line 65; col. 4, line 28 – col. 7, line 24); and

dynamically and automatically pricing the event responsive to an electronic entity event pricing plan (see Id.).

As for Claim 2, Boardman et al. further discloses the method, wherein the event includes one of a transaction with a good/service exchanged as part of the transaction, multiple transactions with goods/services, a product query, an

advertisement review, transferring to another site, an exchange subscription fee, and a customer characteristic (see Supra Figs. and columns).

As for Claim 3, Boardman et al. further discloses the method, wherein the pricing is responsive to relationships among buyers and sellers comprising negotiated customer specific rates and discounts (see id.).

As for Claim 4, Boardman et al. further discloses the method, wherein the dynamic pricing plan uses a decision network having rule based functions (see Supra Figs.).

As for Claim 5, Boardman et al. further discloses the method, wherein said functions price the transaction across goods/services (see Figs. 1-8; col. 1, lines 38-63; col. 2, line 42 – col. 3, line 65; col. 4, line 28 – col. 7, line 24).

As for Claim 6, Boardman et al. further discloses the method, wherein the rules based functions include conditional decisions (see Id.).

As for Claim 7, Boardman et al. further discloses the method, wherein the rules based functions include pricing calculation algorithms (see Supra Figs.).

As for Claim 8, Boardman et al. further discloses the method, wherein the algorithms include one of single unit, double unit, taper discount, tier, tier discount, percent, flat, charge, minimum, maximum, accumulation, threshold, multi-unit and taper charges (see Id.).

As for Claim 9, Boardman et al. further discloses the method, wherein said electronic event has a transaction price and a good/service price (see Figs. 1-8; col. 1, lines 38-63; col. 2, line 42 – col. 3, line 65; col. 4, line 28 – col. 7, line 24).

As for Claim 10, Boardman et al. further discloses the method, wherein said electronic event includes multiple transactions (see Id.).

As for Claim 11, Boardman et al. further discloses the method, wherein the pricing includes detail and summary pricing (see Figs. 1-8; col. 1, lines 38-63; col. 2, line 42 – col. 3, line 65; col. 4, line 28 – col. 7, line 24).

As for Claim 12, Boardman et al. discloses a method associated with an electronic exchange which produces an electronic exchange event, said method comprising:

receiving the electronic exchange event; and dynamically and automatically pricing the electronic exchange event responsive to an electronic exchange event pricing plan (see Figs. 1-8; col. 1, lines 38-63; col. 2, line 42 – col. 3, line 65; col. 4, line 28 – col. 7, line 24).

As for Claim 13, Boardman et al. discloses a method, comprising:

receiving an electronic exchange transaction request;

performing an electronic exchange function responsive to the electronic exchange transaction request; and

dynamically and automatically pricing an electronic exchange event responsive to an electronic exchange event pricing plan (see Figs. 1-8; col. 1, lines 38-63; col. 2, line 42 – col. 3, line 65; col. 4, line 28 – col. 7, line 24).

As for Claim 14, Boardman et al. discloses a method, comprising:

receiving electric exchange events; and

dynamically and automatically pricing the electronic exchange events responsive to an electronic exchange event pricing plan having transaction pricing, cross product pricing, summary pricing and non-transaction pricing(see Figs. 1-8; col. 1, lines 38-63; col. 2, line 42 – col. 3, line 65; col. 4, line 28 – col. 7, line 24).

As for Claim 15, Boardman et al. discloses a method, comprising:

receiving electronic exchange transaction requests;

performing electronic exchange functions responsive to the electronic exchange request and where the function includes transactions exchanging a goods/services having a goods/services prices; and

dynamically and automatically pricing the electronic exchange transactions with detail and summary pricing using an electronic exchange event pricing plan responsive to relationships among buyers and sellers and including negotiated customer specific rates and where the dynamic pricing plan uses a decision network having rule based functions pricing the transactions, pricing across the transactions, pricing across the goods/services, pricing with charge limitations and pricing non-transactions using conditional pricing decisions and pricing calculation algorithms including single unit, double unit, taper discount, tier, tier discount, percent, flat, charge, minimum, maximum, accumulation, threshold, multi-unit and taper charges (see Figs. 1-8; col. 1, lines 38-63; col. 2, line 42 – col. 3, line 65; col. 4, line 28 – col. 7, line 24).

As for Claim 16, Boardman et al. discloses a system, comprising:

an electronic exchange handling an electronic exchange event; and

a pricing mechanism dynamically pricing the electronic exchange event responsive to an electronic exchange event pricing plan (see Figs. 1-8; col. 1, lines 38-63; col. 2, line 42 – col. 3, line 65; col. 4, line 28 – col. 7, line 24).

As for Claim 17, Boardman et al. further discloses the system, wherein said pricing mechanism includes a code-based pricer and non-code based rules used by the pricer to price the event (see Id.).

As for Claim 18, Boardman et al. a computer readable storage controlling a computer by dynamically and automatically pricing the electronic exchange event responsive to an electronic exchange event pricing plan (see Figs. 1-8; col. 1, lines 38-63; col. 2, line 42 – col. 3, line 65; col. 4, line 28 – col. 7, line 24).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

"Selecting Algorithms in the Presence of Uncertainty" is cited to show a method for selecting algorithms for execution in database management systems for the evaluation of user generated queries.

US 6,526,392 is cited to show a method and system for yield managed service contract pricing, using detailed analysis of the demand over short time intervals to capture the variability.

EP 323,383 is cited to show an automated inventory management system providing that it is easy to user and user friendly to evaluate the impact of customer demand changes on inventory.

US 6,536,935 is cited to show an apparatus for determining assignments to attributes of components within a system. The invention uses a distributed market-based constraint optimization technique to set prices on alternative assignments to the various attributes of a design.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Woo whose telephone number is 703-308-7830. The examiner can normally be reached on Monday-Friday from 8:30 AM -5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on 703-308-2702. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

Richard Woo
Patent Examiner
GAU 3629
September 30, 2004

JOHN G. WEISS
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